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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/817,314	03/26/2001	Martin Vetterli	123593.00106	8869

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EXAMINER	
NGUYEN, PHU K	

ART UNIT	PAPER NUMBER
2628	

MAIL DATE	DELIVERY MODE
08/03/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/817,314	VETTERLI ET AL.	
	Examiner	Art Unit	
	PHU NGUYEN	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 May 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *44 and 48-51* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *44, 48-51* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 44, 48-49 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The disclosure fails to provide the details as how the captured image of an object, which is just a bitmap, can be used to select a specific component of the object for displaying its annotating information. It is well known to select a point on a bitmap image, but it is unclear in Applicant's specification as how to associate the selected position with a specific part of the displayed object as claimed.

Claim 50 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. It is unclear as how the selected element is identified for annotated on the captured image based on the element's position (received from the beacon) in the real space.

Claim 51 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. It

is unclear as how the selected element is identified on the captured image based on the position and shooting direction of said camera.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 44, 48-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rose et al. (Annotating Real-World Objects Using Augmented Reality) in view of Harrison et al (6,611,725).

As per claim 44, Rose teaches the claimed "computerized method for annotating" comprising the steps of:

"capturing a digital image of a view having an element with a camera" (Rose, page 2, video camera captures the object on scene; "currently we use a video monitor to represent the user's view, ..." – lines 2-3);

"selecting an element from the captured image" (Rose, page 10, last paragraph);

"obtaining an identification of the element" (Rose, page 9, section 6 Model Annotations, 2nd paragraph);

"relating the identification to annotating data associated with said elements; superimposing said annotating data on said view" (Rose, page 9, section 6 Model Annotations);and

"causing the data to be displayed on a display device" (Rose, page 10, figure 6.1).

It is noted that Rose does not teach elements displayed with its annotating information is selected "from the captured image" as claimed. However, Harrison teaches how to generate an annotation to a display 2D object (Harrison, column 7, lines 35-58). The decision to use a 3D pointer for selecting a part of the 3D object as in the Rose reference or a 2D pointer in combine with other 3D data structure for selecting a part of an object represented in the 2D image as in Harrison reference are both well known in the art. The motivation for use a 2D image to select a part for annotation is to take advantage of 2D monitor display. It is Rose does not teach the camera belongs to "a mobile phone" as claimed. However, since the mobile phone has no involvement in the process of capturing an image, selecting an element for annotating, finding and displaying the annotating data on the display, it would have been obvious to capture images by a camera of a mobile phone or a mobile device (e.g., a laptop) is just a matter of design choice.

RESPONSE TO APPLICANT'S ARGUMENTS:

Applicant's arguments filed May 18, 2010 have been fully considered but they are not deemed to be persuasive.

Applicant argues that Rose uses a 3D pointing device to select a component of the real 3D object, not a 2D pointing device to select an element of the 2D image as claimed. The new reference of Harrison teaches how to select an element of a 2D image as claimed. The argument deems to be moot due to new ground of rejection.

Applicant argues that Rose does not teach the camera is attached to "a mobile phone." However, the cited references of Rose and Harrison teach all the processes of the method and the claimed "mobile phone" has no involvement in the claimed steps of the method. The portability of a mobile phone for "image taken on the go" is just a matter design choice in view of a mobile laptop containing the software applications as described in the Rose and Harrison references.

As per claim 48, Rose teaches the claimed "system for annotating" comprising:

"a mobile phone including a camera for capturing a digital image of a view" (Rose, page 2, video camera captures the object on scene; "currently we use a video monitor to represent the user's view, …" – lines 2-3);

"means for obtaining an identification of the element" (Rose, page 9, section 6 Model Annotations, 2nd paragraph);

"means for relating the identification to annotating data associated with said elements; means for superimposing said annotating data on said view" (Rose, page 9, section 6 Model Annotations); and

"a display for displaying data" (Rose, page 10, figure 6.1).

It is noted that Rose does not teach the elements displayed with its annotating information is selected "from the captured view" as claimed. However, Harrison teaches how to generate an annotation to a display 2D object (Harrison, column 7, lines 35-58). The decision to use a 3D pointer for selecting a part of the 3D object as in the Rose reference or a 2D pointer in combine with other 3D data structure for selecting a part of an object represented in the 2D image as in Ellenby reference are both well known in the art. The motivation for use a 2D image to select a part for annotation is to take advantage of 2D monitor display. It is Rose does not teach the camera belongs to "a mobile phone" as claimed. However, since the mobile phone has no involvement in the process of capturing an image, selecting an element for annotating, finding and displaying the annotating data on the display, it would have been obvious to capture images by a camera of a mobile phone or a mobile device (e.g., a laptop) is just a matter of design choice.

As per claim 49, Rose teaches the claimed "computerized method for annotating" comprising the steps of:

"capturing a digital image of a view having an element with a camera; displaying said view on a display" (Rose, page 2, video camera captures the object on scene; "currently we use a video monitor to represent the user's view, …" – lines 2-3);

"selecting an element to be annotated" (Rose, page 10, last paragraph);

"relating the identification to annotating data associated with said elements; superimposing said annotating data on said view" (Rose, page 9, section 6 Model Annotations);and

"super imposing said annotating data on said view" (Rose, page 10, figure 6.1).

It is noted that Rose does not teach elements displayed with its annotating information is selected "by pointing on said element on said display" as claimed. However, Harrison teaches how to generate an annotation to a display 2D object by pointing on said element on said display (Harrison, column 7, lines 35-58). The decision to use a 3D pointer for selecting a part of the 3D object as in the Rose reference or a 2D pointer in combine with other 3D data structure for selecting a part of an object represented in the 2D image as in Ellenby reference are both well known in the art. The motivation for use a 2D image to select a part for annotation is to take advantage of 2D monitor display.

Claims 44, 48-49, and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rose et al. (Annotating Real-World Objects Using Augmented Reality) in view of Ellenby et al (6,307,556).

As per claim 44, Rose teaches the claimed "computerized method for annotating" comprising the steps of:

"capturing a digital image of a view having an element with a camera" (Rose, page 2, video camera captures the object on scene; "currently we use a video monitor to represent the user's view, …" – lines 2-3);

"selecting an element from the captured image" (Rose, page 10, last paragraph);

"obtaining an identification of the element" (Rose, page 9, section 6 Model Annotations, 2nd paragraph);

"relating the identification to annotating data associated with said elements; superimposing said annotating data on said view" (Rose, page 9, section 6 Model Annotations);and

"causing the data to be displayed on a display device" (Rose, page 10, figure 6.1).

It is noted that Rose does not teach elements displayed with its annotating information is selected "from the captured image" as claimed. However, Ellenby teaches how to generate an annotation to a display 2D object (Ellenby, column 7, lines 47-61). The decision to use a 3D pointer for selecting a part of the 3D object as in the Rose reference or a 2D pointer in combine with other 3D data structure for selecting a part of an object represented in the 2D image as in Ellenby reference are both well known in the art. The motivation for use a 2D image to select a part for annotation is to take advantage of 2D monitor display. It is Rose does not teach the camera belongs to "a mobile phone" as claimed. However, since the mobile phone has no involvement in the process of capturing an image, selecting an element for annotating, finding and displaying the annotating data on the display, it would have been obvious to capture

images by a camera of a mobile phone or a mobile device (e.g., a laptop) is just a matter of design choice.

RESPONSE TO APPLICANT'S ARGUMENTS:

Applicant's arguments filed May 18, 2010 have been fully considered but they are not deemed to be persuasive.

Applicant argues that Rose uses a 3D pointing device to select a component of the real 3D object, not a 2D pointing device to select an element of the 2D image as claimed. The new reference of Ellenby teaches how to select an element of a 2D image as claimed. The argument deems to be moot due to new ground of rejection.

Applicant argues that Rose does not teach the camera is attached to "a mobile phone." However, the cited references of Rose and Ellenby teach all the processes of the method and the claimed "mobile phone" has no involvement in the claimed steps of the method. The portability of a mobile phone for "image taken on the go" is just a matter design choice in view of a mobile laptop containing the software applications as described in the Rose and Ellenby references.

As per claim 48, Rose teaches the claimed "system for annotating" comprising:

"a mobile phone including a camera for capturing a digital image of a view" (Rose, page 2, video camera captures the object on scene; "currently we use a video monitor to represent the user's view, …" – lines 2-3);

"means for obtaining an identification of the element" (Rose, page 9, section 6 Model Annotations, 2nd paragraph);

"means for relating the identification to annotating data associated with said elements; means for superimposing said annotating data on said view" (Rose, page 9, section 6 Model Annotations); and

"a display for displaying data" (Rose, page 10, figure 6.1).

It is noted that Rose does not teach the elements displayed with its annotating information is selected "from the captured view" as claimed. However, Ellenby teaches how to generate an annotation to a display 2D object (Ellenby, column 7, lines 47-61). The decision to use a 3D pointer for selecting a part of the 3D object as in the Rose reference or a 2D pointer in combine with other 3D data structure for selecting a part of an object represented in the 2D image as in Ellenby reference are both well known in the art. The motivation for use a 2D image to select a part for annotation is to take advantage of 2D monitor display. It is Rose does not teach the camera belongs to "a mobile phone" as claimed. However, since the mobile phone has no involvement in the process of capturing an image, selecting an element for annotating, finding and displaying the annotating data on the display, it would have been obvious to capture images by a camera of a mobile phone or a mobile device (e.g., a laptop) is just a matter of design choice.

As per claim 49, Rose teaches the claimed "computerized method for annotating" comprising the steps of:

"capturing a digital image of a view having an element with a camera; displaying said view on a display" (Rose, page 2, video camera captures the object on scene; "currently we use a video monitor to represent the user's view, ..." – lines 2-3);

"selecting an element to be annotated" (Rose, page 10, last paragraph);

"relating the identification to annotating data associated with said elements; superimposing said annotating data on said view" (Rose, page 9, section 6 Model Annotations);and

"super imposing said annotating data on said view" (Rose, page 10, figure 6.1).

It is noted that Rose does not teach elements displayed with its annotating information is selected "by pointing on said element on said display" as claimed. However, Ellenby teaches how to generate an annotation to a display 2D object by pointing on said element on said display (Ellenby, column 7, lines 47-61). The decision to use a 3D pointer for selecting a part of the 3D object as in the Rose reference or a 2D pointer in combine with other 3D data structure for selecting a part of an object represented in the 2D image as in Ellenby reference are both well known in the art. The motivation for use a 2D image to select a part for annotation is to take advantage of 2D monitor display.

As per claim 51, Rose teaches the claimed "computerized method for annotating" comprising the steps of:

"capturing a digital image of a view having an element with a camera; displaying said view on a display" (Rose, page 2, video camera captures the object on scene; "currently we use a video monitor to represent the user's view, …" – lines 2-3);

"relating a selected element to annotating data associated with the element" (Rose, page 9, section 6 Model Annotations);and

"super imposing said annotating data on said view" (Rose, page 10, figure 6.1).

It is noted that Rose does not teach elements displayed with its annotating information is selected "using said positions, said shooting direction of said camera and visual cues" as claimed. However, Ellenby teaches how to generate an annotation to a display 2D object by "using said positions, said shooting direction of said camera and visual cues" (Ellenby, column 4, lines 36-38, column 6, lines 56-66; column 7, lines 26-46). The motivation for use "said positions, said shooting direction of said camera and visual cues" because they are well known to accurately identify a selected element on the displayed scene (Ellenby, column 5, lines 35-47).

Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rose et al. (Annotating Real-World Objects Using Augmented Reality) in view of Sanderford et al. (5,917,449).

As per claim 50, Rose teaches the claimed "computerized method for annotating" comprising the steps of:

"capturing a digital image of a view having an element with a camera; displaying said view on a display" (Rose, page 2, video camera captures the object on scene; "currently we use a video monitor to represent the user's view, ..." – lines 2-3);

"determining the position of said element and for retreiving meta-information associated with the element" (Rose, page 9, section 6 Model Annotations);and

"super imposing said annotating data corresponding to said meta-information on said view" (Rose, page 10, figure 6.1).

It is noted that Rose does not teach the element's position and meta-information is received "using radio signals" as claimed. However, Sanderford teaches how to sending the position and information using a radio signal (Sanderford, the radio beacon 406, column 10, lines 22-46, column 12, line 50 to column 13, line 3, lines). The motivation for using radio signal to transmit the element's position and its meta-information is to take advantage of accurately determining the element's information (Sanderford, column 10, lines 22-24).

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHU NGUYEN whose telephone number is (571)272-7645. The examiner can normally be reached on M-F/8AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on (571) 272 7794. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ Phu K. Nguyen/
Primary Examiner, Art Unit 2628